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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,649	08/07/2003	Koci Hatade	60188-629	8814

7590 08/08/2006

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EXAMINER

PHAM, VAN T

ART UNIT	PAPER NUMBER
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2627

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/635,649		HATADE ET AL.	
	Examiner		Art Unit	
	VAN T. PHAM		2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments filed on 7/11/2006 with respect to claims 1 and 6 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konayama (JP 10-021574) in view of Uchizaki et al (US 6,728,193)

Regarding claim 1, Konayama discloses an object lens for an optical pickup (Fig. 1), said object lens being of finite conjugate type for use in an optical pickup having a unit (see abstract), in which a semiconductor laser diode including light emitting portions for respectively emitting light of different wavelengths, a photo detector and said objective lens are integrally and fixedly arranged (intended used), and capable of recording data in and reproducing data from a first optical recording medium and a second optical recording medium respectively having recording faces at different heights by irradiating said first optical recording medium and said second optical recording medium with a laser beam through said object lens (see Fig. 1), and curvature and aspheric coefficients of said object lens being designed to have numerical aperture controlled to be changed in accordance with switching between said different wavelengths, whereby allowing said laser beam to be focused on said first optical recording medium or said second

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optical recording medium (see Figs. 1-3, 5b and 6b, element 5 which is an opening limit means for the optical disk of two or more specification medium can be stabilized and played using the high NA finite objective lens of a piece (see [0015]), [0007]-[0008]). However, Konayama does not disclose a semiconductor diode array.

Uchizaki, see Figs. 1, 10 discloses a numerical aperture controller it is to be changed in accordance with switching between said different wavelengths, whereby allowing laser beam to be focused on first optical recording medium or second recording medium (noted that not only Konayama discloses an numerical aperture controller (see rejection above), also Uchizaki does too (see col. 1-2) and a semiconductor laser diode array.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a numerical aperture controller and a semiconductor diode array in Konayama as suggested by Uchizaki, the motivation being in order to simplifying data recording/reading system for both DVD and CD (see Uchizaki, col. 1).

Regarding claim 3, the combination of Konayama and Uchizaki, see Uchizaki col. 4, lines 35-44 and col. Col. 9, lines 45-53, discloses the object lens of claim 1, wherein a distance between said light emitting portions of said semiconductor laser diode array is 270 μm or less.

Regarding claim 4, the combination of Konayama and Uchizaki, see Uchizaki Figs. 1, 10, discloses the object lens of claim 1, wherein change of the numerical aperture of said object lens is controlled in accordance with the switching between said different wavelengths in such a manner that, in the case where a laser beam of a wavelength suitable to said first optical recording medium is allowed to pass through said object lens for irradiating said first optical recording medium, portions of said laser beam respectively passing through a circular center

region including a lens optical axis and a ring-shaped intermediate region around said center region are focused on the recording face of said first optical recording medium, and that in the case where a laser beam of another wavelength suitable to said second optical recording medium is allowed to pass through said object lens for irradiating said second optical recording medium, portions of said laser beam respectively passing through said center region and a ring-shaped peripheral region around said intermediate region are focused on the recording face of said second optical recording medium (see cols.1-4).

Regarding claim 5, the combination of Konayama and Uchizaki, see Uchizaki Figs. 1, 10, discloses the object lens of claim 4, wherein said center region and said intermediate region are defined by an identical lens function.

Regarding claim 6, see rejection above of claim 1.

Regarding claim 7, the combination of Konayama and Uchizaki, see Konayama Fig. 4 wherein spherical aberration in a predetermined region of said object lens is changed.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Cited References

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The cited references relate to an optical pickup device includes a double -source built-in semiconductor laser for emitting light of a first wavelength and a light of a second wavelength, and an optical pickup apparatus, laser light sources emit a first light beam having having a relatively shorter wavelength for the DVD and a second light beam having a longer wavelength for the CD.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN T. PHAM whose telephone number is 571-272-7590. The examiner can normally be reached on Monday-Thursday from 9:00 am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP


WAYNE YOUNG
SUPERVISORY PATENT EXAMINER